



INVESTOR IN PEOPLE

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Your Reference: 85.75804
Application No: GB 0114390.8

15 October 2001

Dear Sirs

Patents Act 1977:
Combined Search and Examination Report under Sections 17 and 18(3)

Latest date for reply:

13 June 2002

I enclose two copies of my search and examination report and two copies of the citations.

By the above date you should either file amendments to meet the objections in the report or make observations on them. If you do not, the application may be refused.

Publication

I estimate that, provided you have met all formal requirements, preparations for publication of your application will be completed soon after **13 November 2001**. You will then receive a letter informing you of completion and telling you the publication number and date of publication.

Amendment/withdrawal

If you wish to file amended claims for inclusion with the published application, or to withdraw the application to prevent publication, you must do so before the preparations for publication are completed. **No reminder will be issued.** If you write to the Office less than 3 weeks before the above completion date, please mark your letter prominently: **"URGENT - PUBLICATION IMMINENT"**.

[†]Use of E-mail: Please note that e-mail should be used for correspondence only.



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Yours faithfully

Kathryn Orme
Examiner

Important information about combined search and examination

I also ask that you take note of the following points. These might have a bearing on the future stages of your application because the examination report has been sent to you before your application has been published.

- (a) You may file voluntary amendments before making a full response to my examination report. We will publish with your application any new or amended claims you file voluntarily or as a full response, provided that they are received before preparations for publication are completed. It would help us when you file amendments before publication if you could **prominently indicate** in a covering letter whether or not the amendments are intended as a full response to the examination report.
- (b) If you file a full response to the examination report before your application is published I will consider it as soon as possible. However, if this would disrupt the publication of your application, I would have to delay taking any action until the application had been published. This delay could be up to 3 months, depending upon when we receive your response.
- (c) There is another situation when there might be a delay between you filing a full response and the Patent Office responding to it. This would arise if you met all my objections but your application had not or had only recently been published. I could not report the outcome of my re-examination until I was satisfied that the search was complete for documents published before the priority date of your invention and that anybody interested in the application has had three months following publication of the application to make observations on the patentability of your invention.
- (d) Provided that the requirements of the Act have been met, I can send your application to grant as early as three months after publication. Before doing so I will bring the original search up to date and raise with you any further objection that might result from this top-up search. However, there is a possibility that at that time I may not have access to all the patent applications published after the priority date of your invention and of possible relevance to your application. If this is the case I would have to complete the search after grant and if necessary raise any new found novelty objection then.



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Application No: GB 0114390.8
Claims searched: 1-24

Examiner: Kathryn Orme
Date of search: 11 October 2001

Patents Act 1977 Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.S): E1F (FGP)

Int Cl (Ed.7): E21B 33/138

Other: Online: WPI, EPODOC, PAJ

Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
X	GB 2351986 A (SOFITECH) see whole document	1-9, 11-21, 23 and 24
X	GB 2304754 A (ALBRIGHT & WILSON) see pages 8-14	1-24
X	GB 2131067 A (DOVERSTRAND LIMITED) see whole document	1-9, 13-19 and 21
X	GB 2074636 A (W. R. GRACE & CO) see whole document	1-3, 5, 7, 9-10, 13-15, 17 and 21-22
X	EP 0175412 A2 (SHELL INTERNATIONAL) see page 1 lines 1-5 and 23-27, page 3 lines 17-18, page 6 lines 27-35, page 7 lines 9-35	1-3, 5, 7, 9, 12-15, 17, 19, 21 and 24

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.



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Patents Act 1977

Combined Search and Examination Report under Sections 17 & 18(3)

Novelty

1. The invention as defined in claims 1-24 is not new because it has already been disclosed in each of the following documents:

GB 2351986 A (SOFITECH) see whole document: relevant to claims 1-7, 9, 11-21, 23 and 24;

GB 2304754 A (ALBRIGHT & WILSON) see pages 8-14: relevant to claims 1-24;

GB 2131067 A (DOVERSTRAND LTD) see whole document: relevant to claims 1-7, 9, 13-19 and 21;

GB 2074636 A (W. R. GRACE & CO) see whole document: relevant to claims 1-3, 5, 7, 9-10, 13-15, 17 and 21-22;

EP 0175412 A2 (SHELL INTERNAT.) see page 1 lines 1-5 and 23-27, page 3 lines 17-18, page 6 lines 27-35, page 7 lines 9-35: relevant to claims 1-3, 5, 7, 9, 12-15, 17, 19, 21 and 24.

2. All of the above documents show a water insoluble polymer dispersed in an aqueous drilling fluid to form a latex. The polymer helps to improve fluid loss control to the borehole formation as the drilling fluid is circulated in contact with the formation. The drilling fluids described may also contain a salt and a precipitating agent. In particular, clays and silicates and alumino-silicates are disclosed and may all perform as precipitating agents. Therefore, claims 1-3, 7, 13-15 and 19 are not novel.

3. With regard to claims 4 and 16, GB 2351986 A, GB 2304754 A and GB 2131067 A describe the inclusion of a surfactant in the drilling fluid composition. Claims 8 and 20 are also anticipated by GB 2304754 A that suggests the use of betaines.

4. All the above documents disclose, amongst others, sodium chloride as being a salt included in the drilling fluid composition. Hence, claims 5 and 17 are not novel.

5. GB 2351986 A, GB 2304754 A and GB 2131067 A disclose *inter alia* polyisoprene, natural latex and polymers made up from methacrylic acid, vinyl acetate, styrene and butadiene monomers, therefore anticipating claims 6 and 18.

6. The feature of claim 9 and 21, the polymer latex being present in the drilling fluid in an amount from 0.1 to 10 volume% would appear to be disclosed in all the above cited documents.



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[Examination Report contd.]

7. Claims 10 and 22 are not novel, as GB 2304754 A and GB 2074636 A disclose the precipitating agent being present within the concentration range of 0.7 to 57.2 g/l.

8. Claims 11 and 23 are anticipated by GB 2351986 A, GB 2304754 A and GB 2131067 A, that describe the surfactant present at 0.005 to 2 wt%.

9. The salt content of the drilling fluids of GB 2351986 A, GB 2304754 A and EP 0175412 A2 is within the range of 1 wt.% to saturation. Therefore, claims 12 and 24 are anticipated.

10. Please note that the documents cited above are only a selection of the most relevant specifications which fall within the scope of claims 1 and 13 which are of very wide scope; a further search may be necessary after amendment.

Support

11. The passage of description on page 3 lines 17-20 "in carrying out these and other objects of the invention, there is provided, in one form," is misleading, as it suggests that the invention as claimed in the principal claim is only one possible form of the invention. A formal statement of invention should be included in the description to provide the necessary support for claim 1.

Registered Trade Marks

12. Although they should preferably be avoided, if you wish to keep the references to the Registered Trade Marks "ALPEX, MIL-BAR, AIRFLEX, PRINCE CASTLE, FANN, MALVERN, VINAC, CARBOGEL, DWYER, HEISE" on pages 4, 8, 9, 11-18 and 20-24 of your specification, you should acknowledge that they are Registered Trade Marks, possibly by using the abbreviation "(RTM)". If you do not insert an acknowledgment, I will do so in manuscript.

Minor Matters

13. There appears to be a typing error at line 31 of page 19 where the text refers to the "precipitation of aluminium complex at pH < 19".